

Understanding and Addressing the Opioid Crisis

Nevada's Prescription Drug Abuse Summit

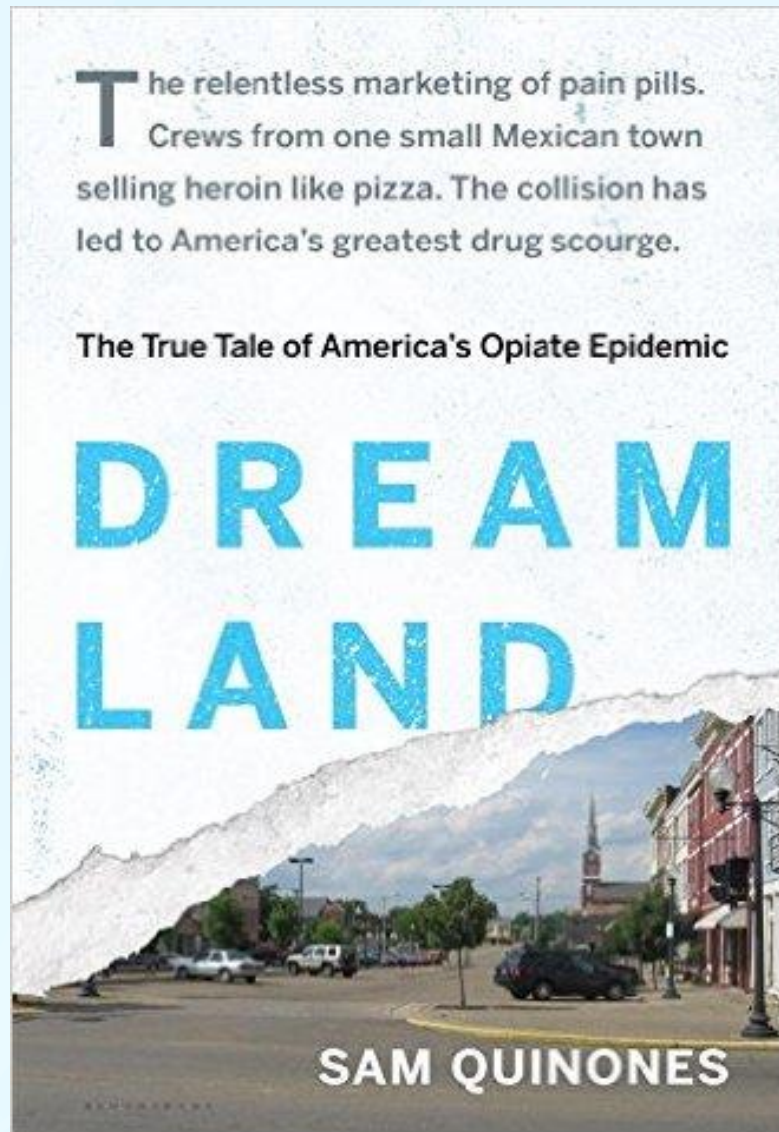
CDC PERSPECTIVE
Rita K. Noonan, PhD

September 1, 2016

National Center for Injury Prevention and Control
Division of Unintentional Injury Prevention



How it all got started...



The relentless marketing of pain pills. Crews from one small Mexican town selling heroin like pizza. The collision has led to America's greatest drug scourge.

The True Tale of America's Opiate Epidemic


DREAMLAND

SAM QUINONES

“In *Dreamland*, former *Los Angeles Times* reporter Sam Quinones deftly recounts how a flood of prescription pain meds, along with black tar heroin from Nayarit, Mexico, transformed the once-vital blue-collar city of Portsmouth, Ohio, and other American communities into heartlands of addiction..” —*Mother Jones*

Outline of this talk

- Intertwined epidemics
- Risk factors for heroin use/overdose
- Emerging threats – toxic adulterants
- The Ohio case
- What can we do?
- Call to action



The amount
of opioids prescribed has
QUADRUPLED
from 1999-2014,



but the pain that
Americans report remains
UNCHANGED



Quarter billion

opioid prescriptions in 2012

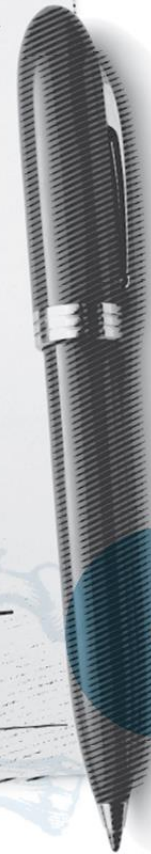


Since 1999, there
have been more than


165,000


deaths from overdose related to
prescription opioids.

A medical prescription form with a large 'Rx' symbol in the top left. The form includes fields for 'PATIENT NAME' and 'ADDRESS', each with three horizontal lines for text. At the bottom, there are fields for 'Date' and 'Signature'. A large, faint watermark of a skull and crossbones is visible across the center of the form.



For every  Rx opioid overdose death in 2011,
there were...

 **12** treatment admissions for opioids

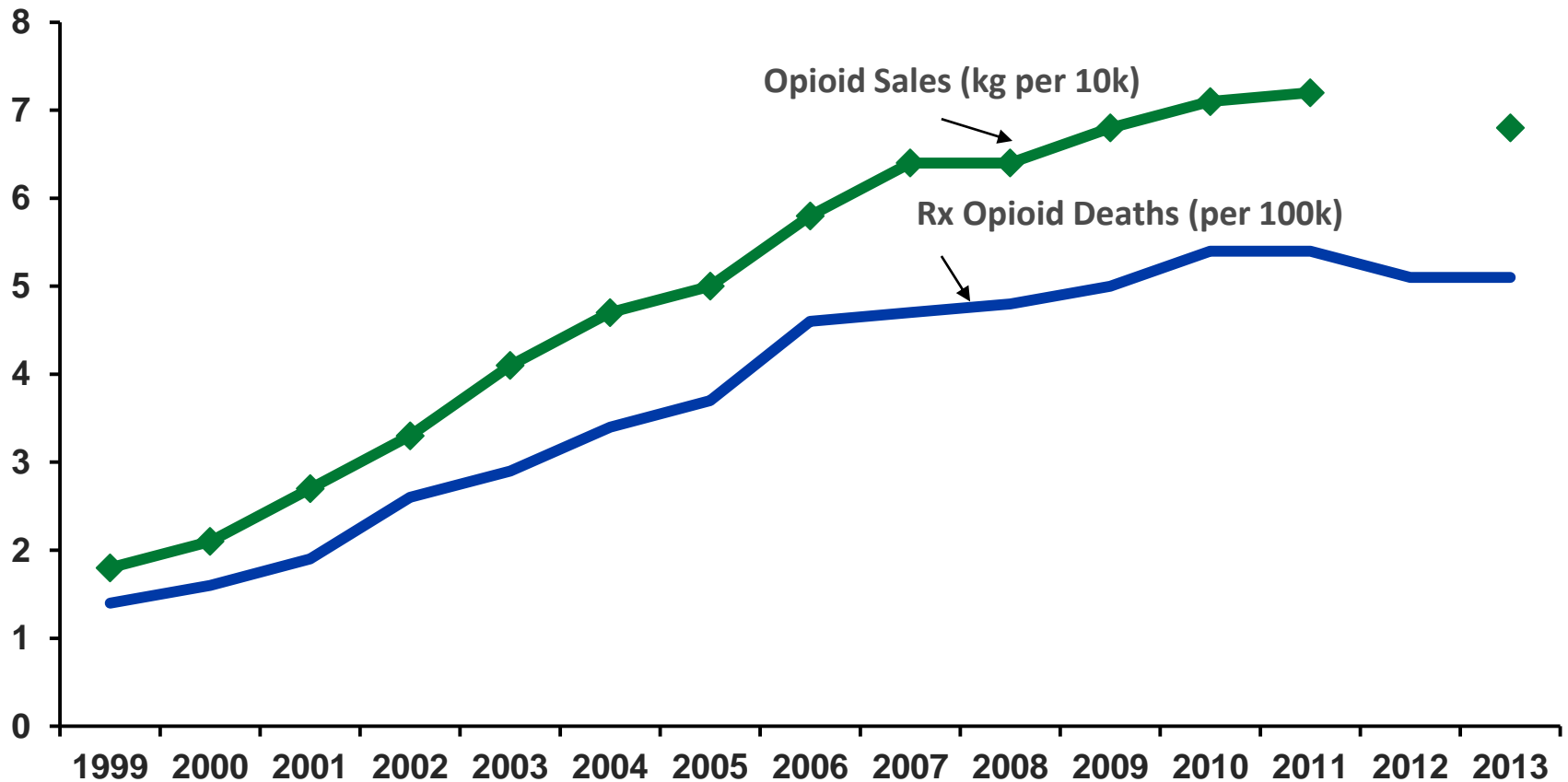
 **25** emergency department visits for opioids

 **105** people who abused or were dependent on opioids

 **659** nonmedical opioid users

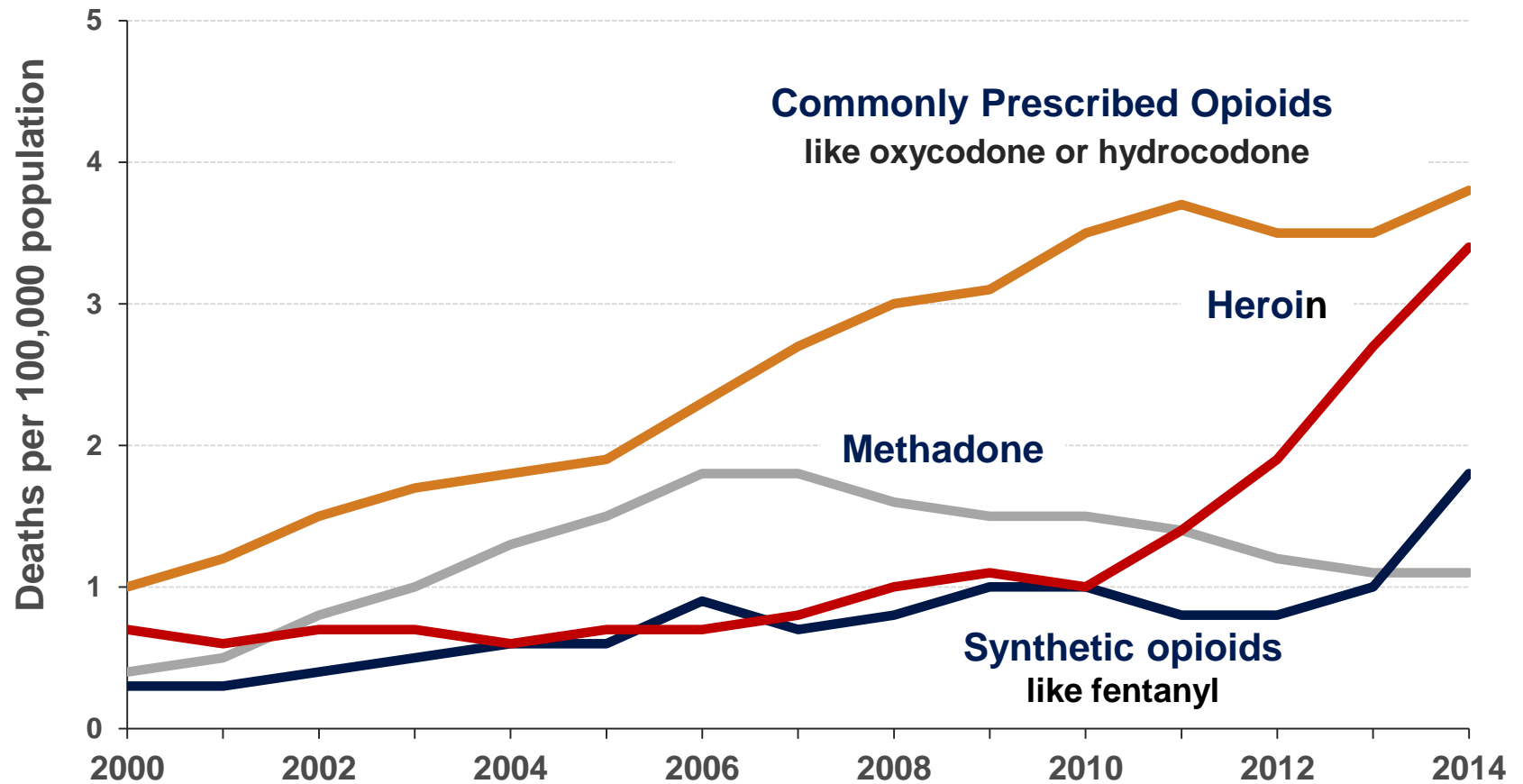


Sharp increases in opioid prescribing coincides with sharp increases in Rx opioid deaths



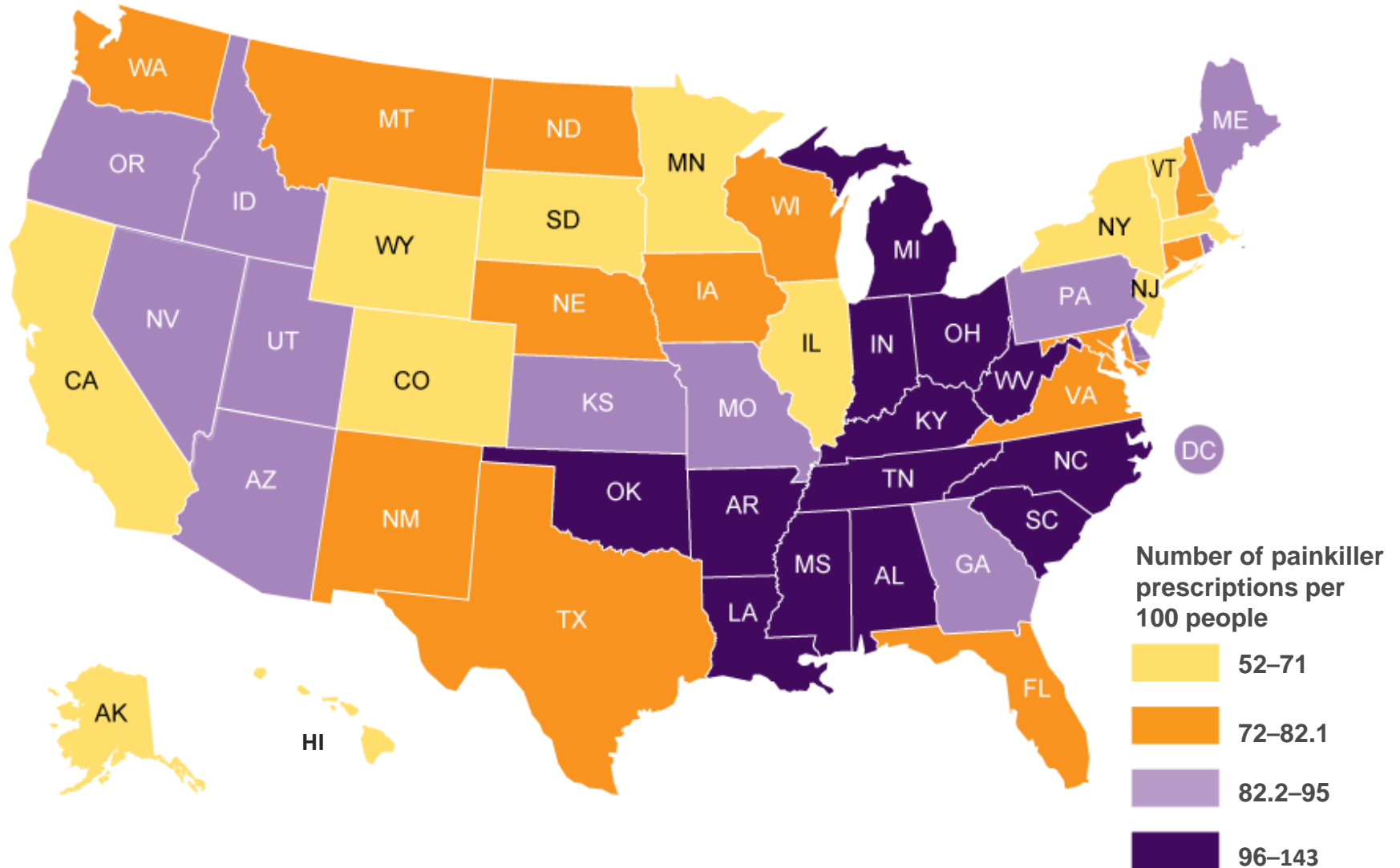
National Vital Statistics System, DEA's Automation of Reports and Consolidated Orders System.

Rise in Rx overdose deaths since 2000 and recent increase in heroin & fentanyl deaths

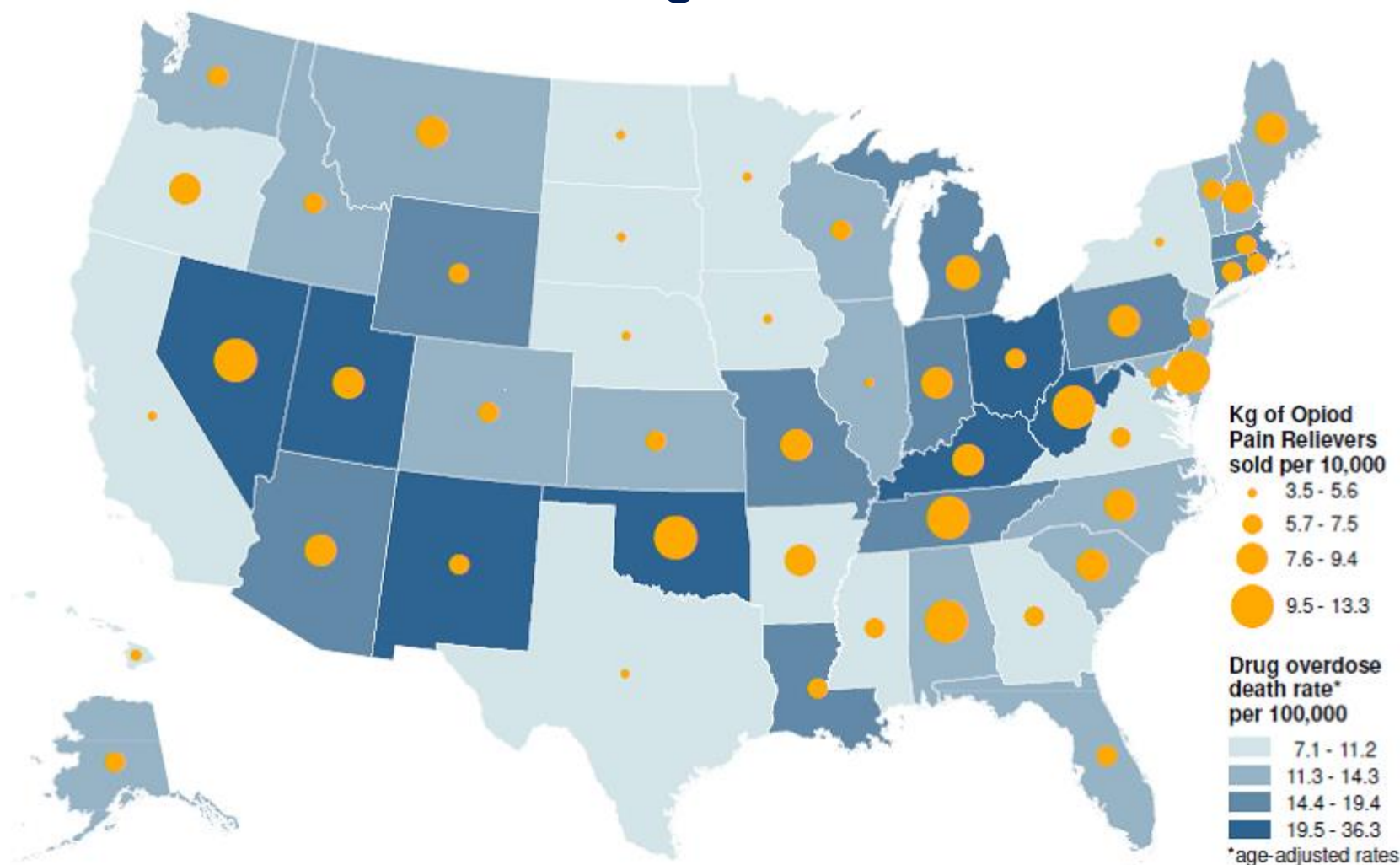


SOURCE: National Vital Statistics System Mortality File.

Opioid prescribing can vary 3-fold between states

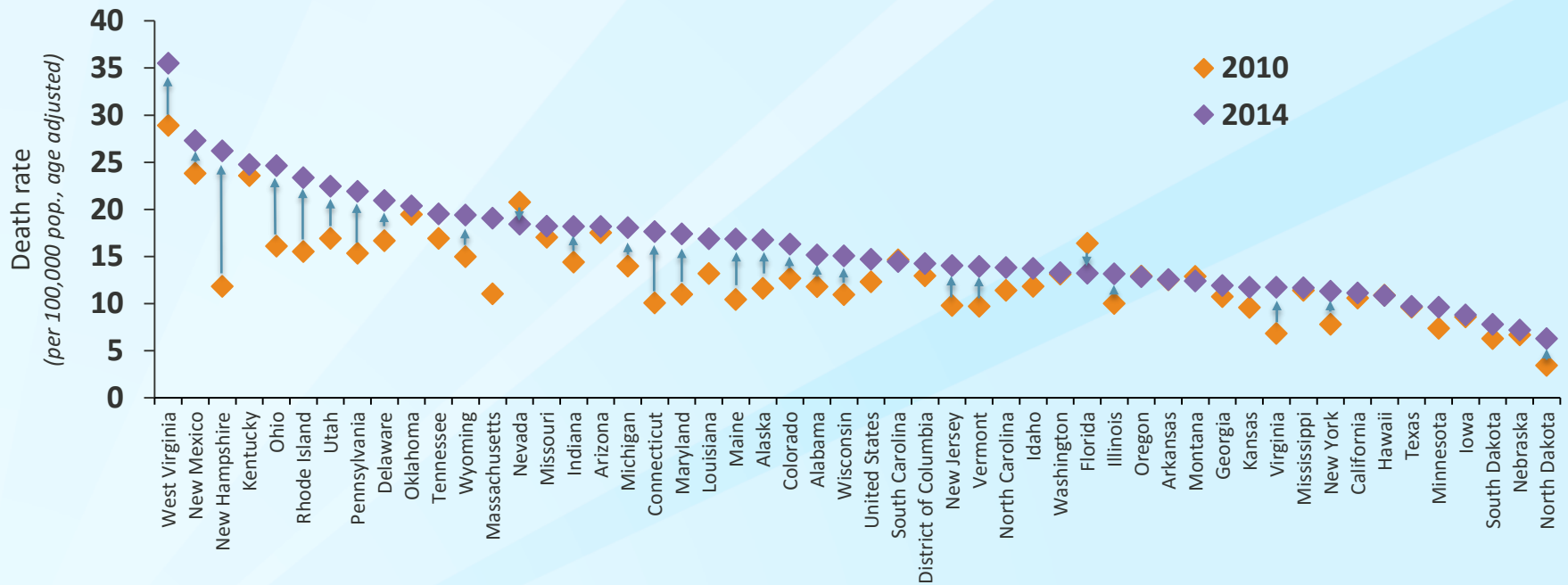


States with more opioid pain reliever sales tend to have more drug overdose deaths

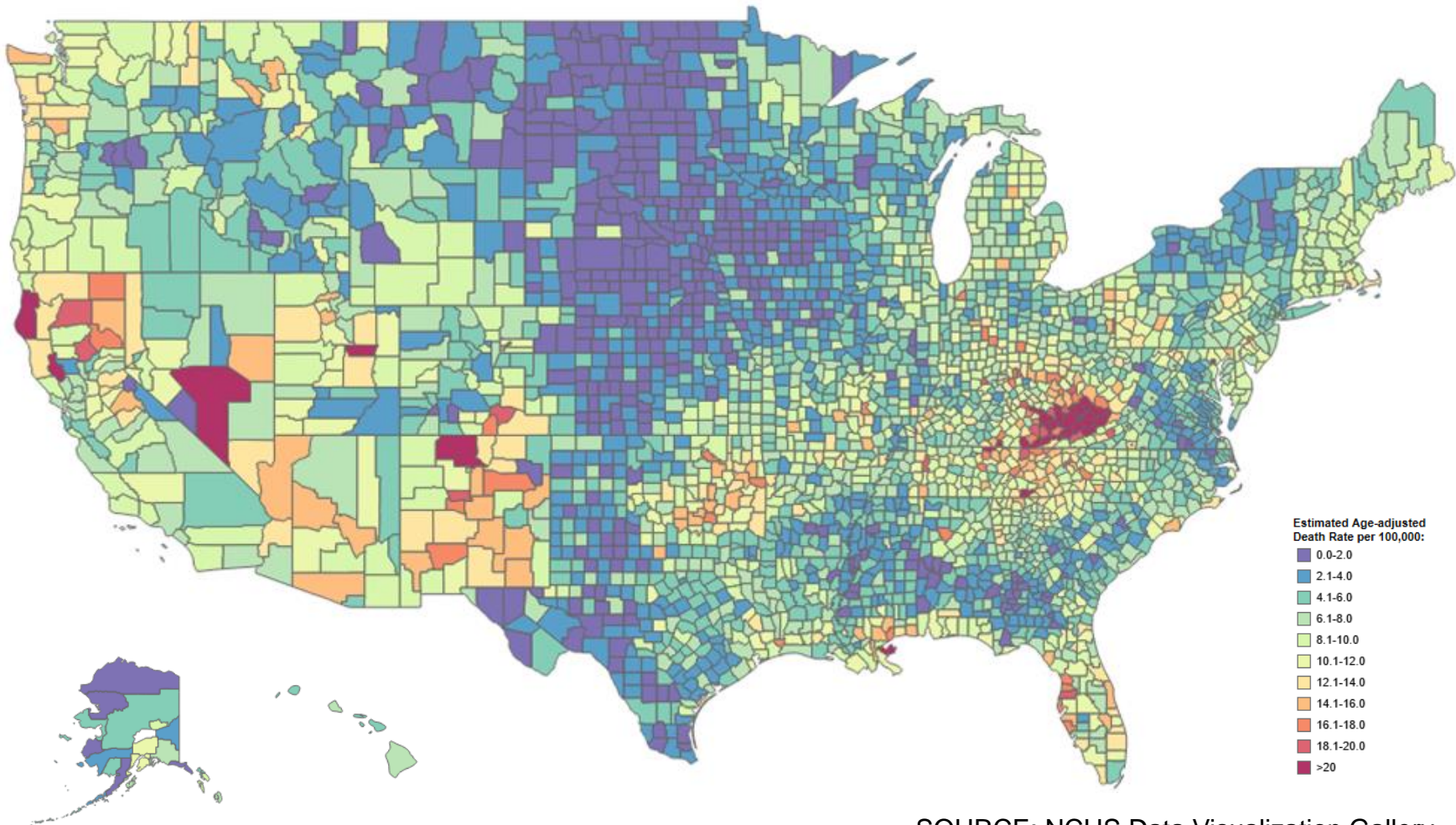


Death rate, 2013, National Vital Statistics System. Opioid pain reliever sales rate, 2013, DEA's Automation of Reports and Consolidated Orders System

Drug poisoning death rates have increased in almost every state in the last 4 years

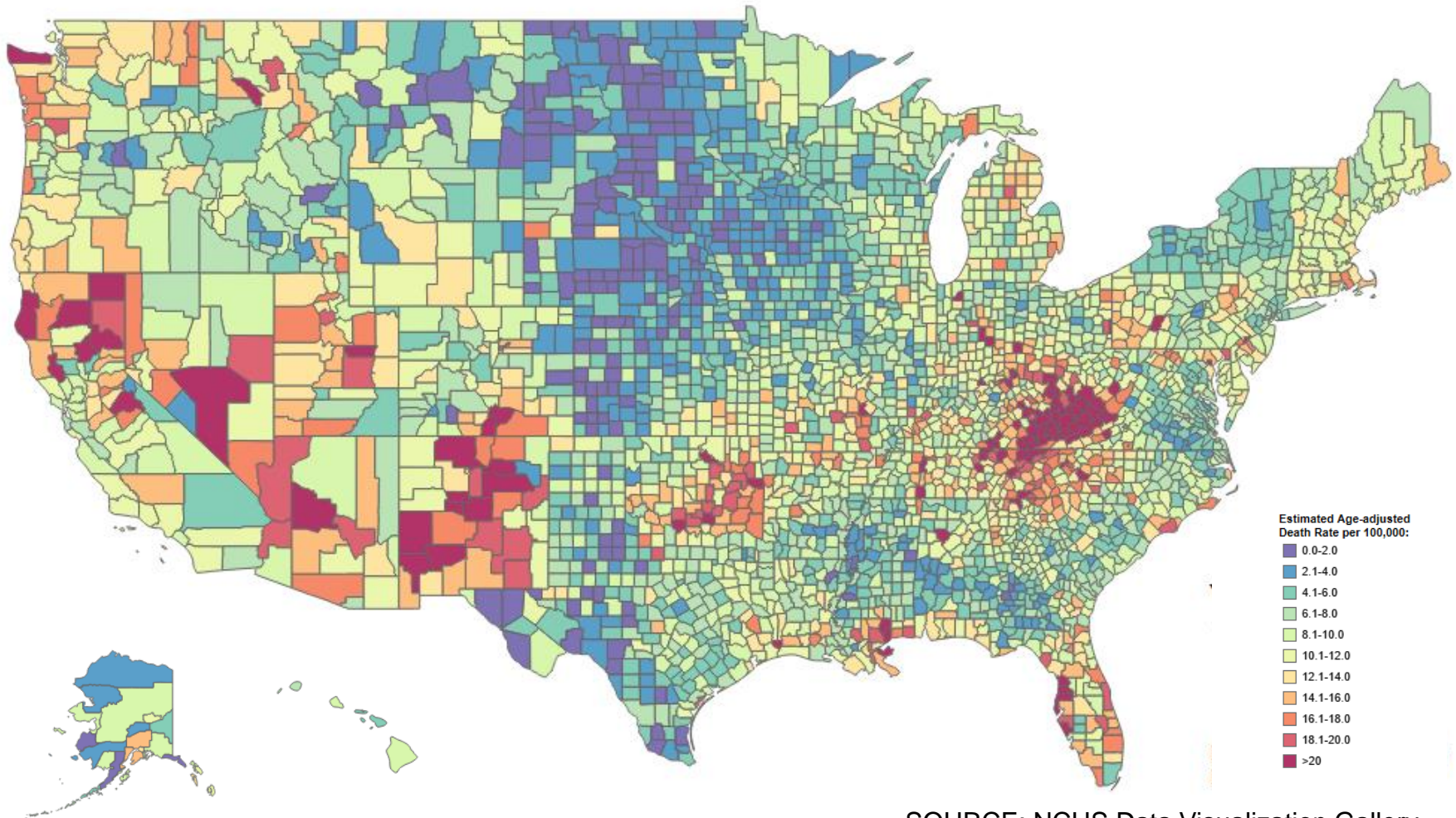


2002 Rapid Increase in Drug Overdose Death Rates by County



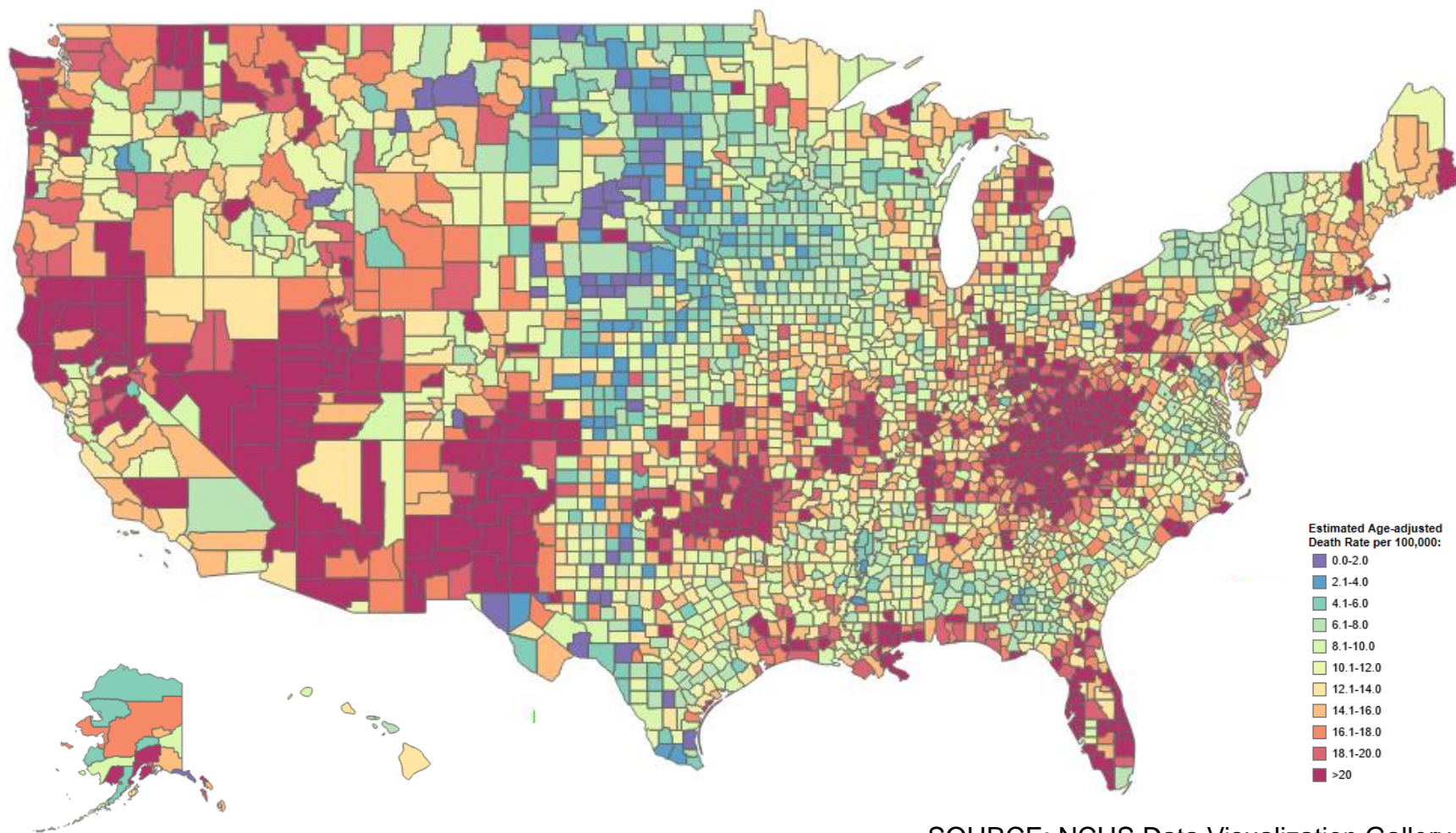
SOURCE: NCHS Data Visualization Gallery

2007 Rapid Increase in Drug Overdose Death Rates by County



SOURCE: NCHS Data Visualization Gallery

2014 Rapid Increase in Drug Overdose Death Rates by County



SOURCE: NCHS Data Visualization Gallery

Prescription Drug Overdose: Prevention for States

Purpose: To provide states guidance and resources to prevent prescription drug overdoses by addressing problematic opioid prescribing.

- non-research FOA
- Cooperative agreements
- State health departments
- Awards of \$750K-1M
- 4-year awards
- PFS “supplement” for certain states



Four “Priority Strategies”

Required Strategies

- 1) **Prescription Drug Monitoring Programs (PDMPs):** Enhancing and maximizing PDMPs
- 2) **Community or Insurer/Health System:** Implementing community and insurer/health system interventions

Optional Strategies

- 3) **Policy Evaluation:** Evaluating state-level laws, policies, and regulations
- 4) **(Rapid Response Projects RRP):** Innovative, rapid response prevention

For example: Enhance & Maximize PDMPs

Major Activities: States must select 2 major activities:

1. Move toward universal PDMP registration and use
2. Make PDMPs easier to use and access
3. Move toward a real-time PDMP
4. Expand and improve proactive reporting
5. Conduct public health surveillance with PDMP data

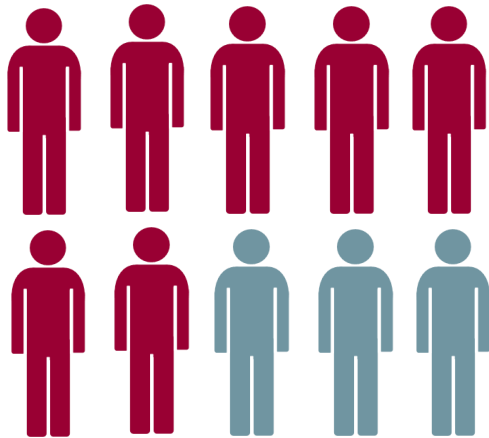
A close-up photograph showing a hand holding a medical syringe. The syringe's needle is inserted into a spoon that contains a yellowish liquid. In the background, there is a pile of white powder on a dark surface. The scene is dimly lit, with the primary light source highlighting the syringe and the spoon's contents.

Trends in Heroin Use & Health Outcomes

Prescription opioid misuse is a major risk factor for heroin use



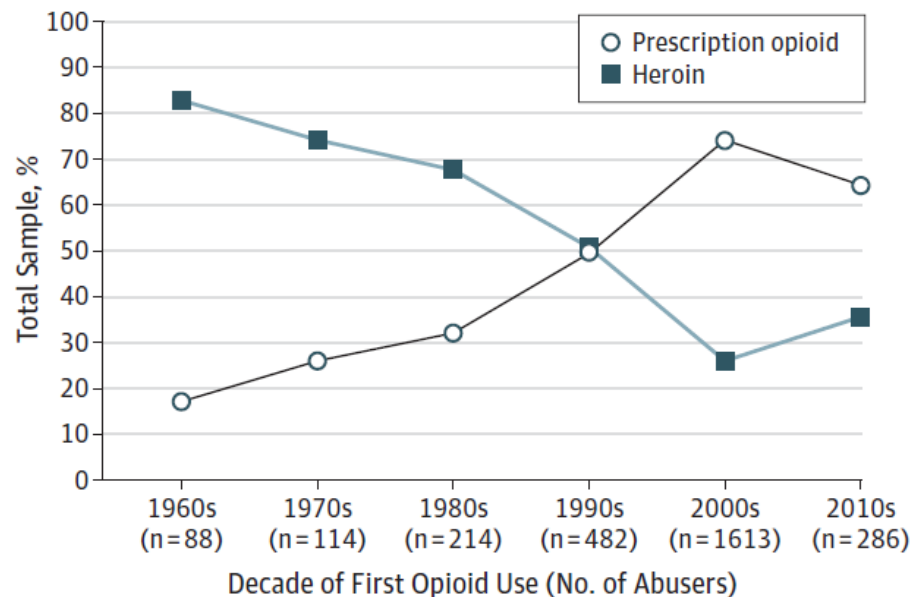
3 out of 4 people
who used heroin in the
past year misused
opioids first



7 out of 10 people
who used heroin in the
past year also misused
opioids in the past year

A majority of people newly dependent on heroin report abusing prescription opioids first

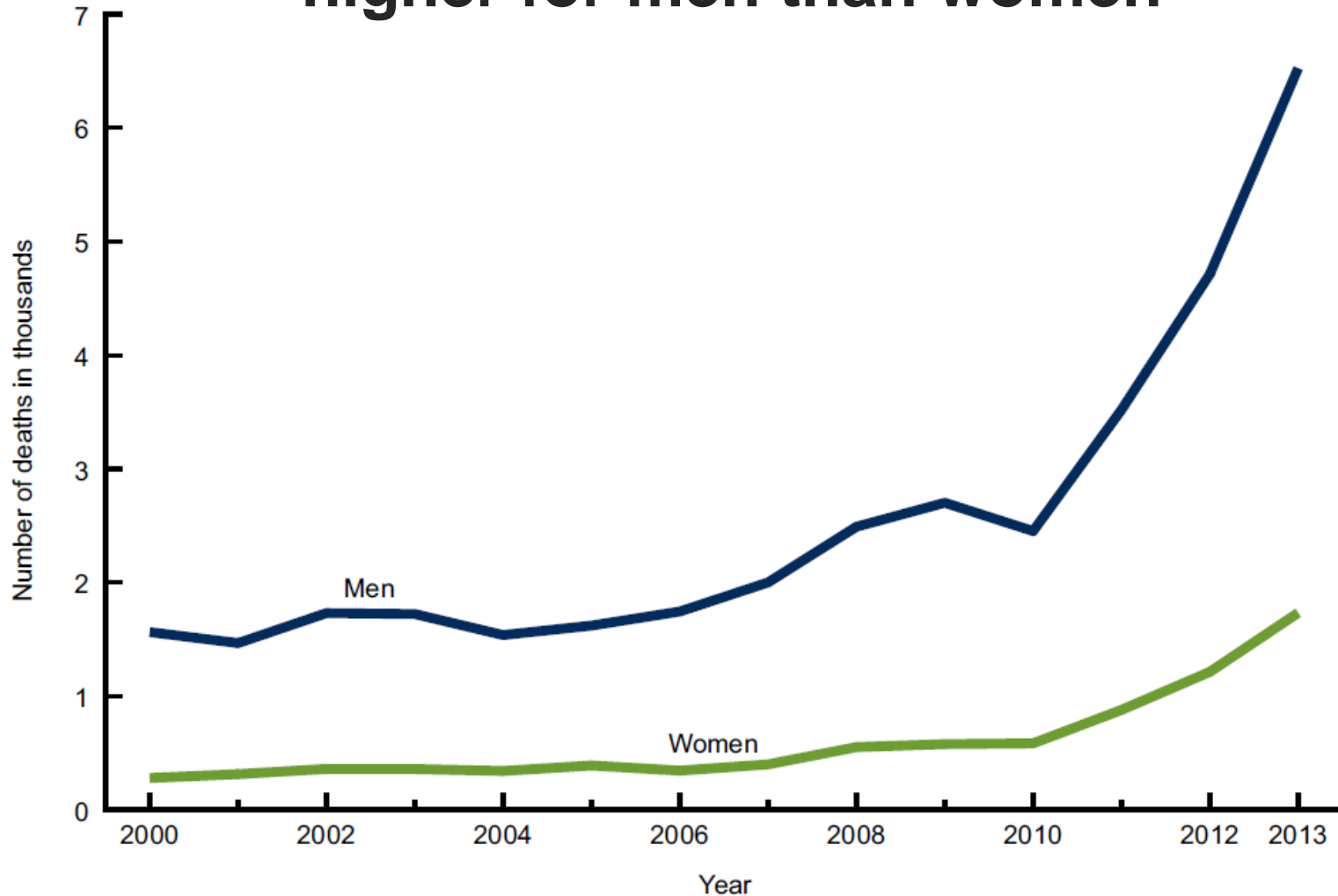
Figure 1. Percentage of the Total Heroin-Dependent Sample That Used Heroin or a Prescription Opioid as Their First Opioid of Abuse



Data are plotted as a function of the decade in which respondents initiated their opioid abuse.

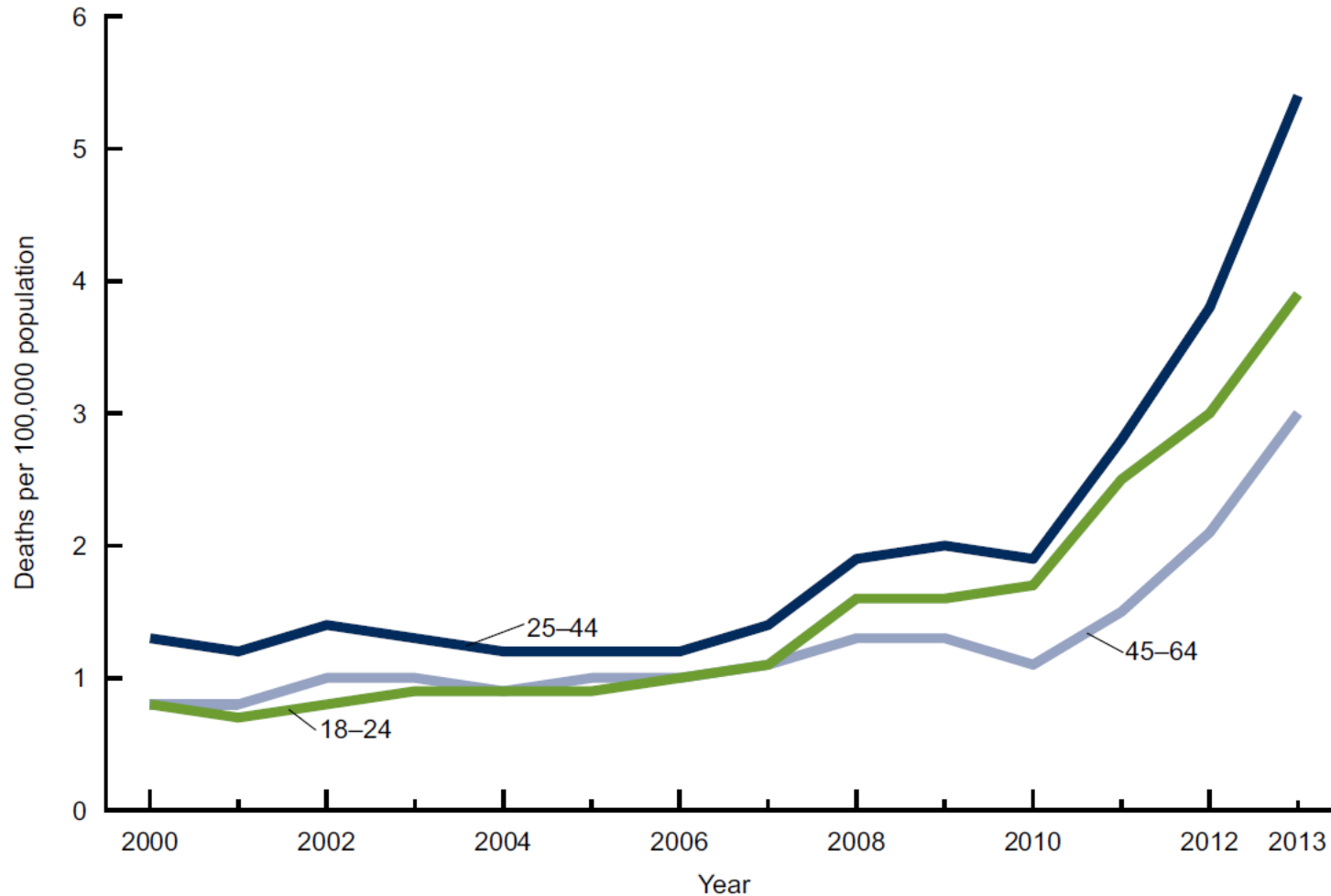
Cicero TJ, Ellis MS, Surratt HL, Kurtz SP. The Changing Face of Heroin Use in the United States: A Retrospective Analysis of the Past 50 Years. *JAMA Psychiatry*.2014;71(7):821-826.

Heroin overdose deaths nearly four times higher for men than women



CDC/NCHS, National Vital Statistics System, Mortality.

Adults age 25-44 have the highest rate of heroin overdose



CDC/NCHS, National Vital Statistics System, Mortality.

EMERGING THREATS

- **Fentanyl analogs or derivatives**
 - Experimentation in production of synthetic opioids
 - Concern over availability of extremely powerful opioids (e.g., Carfentanil)

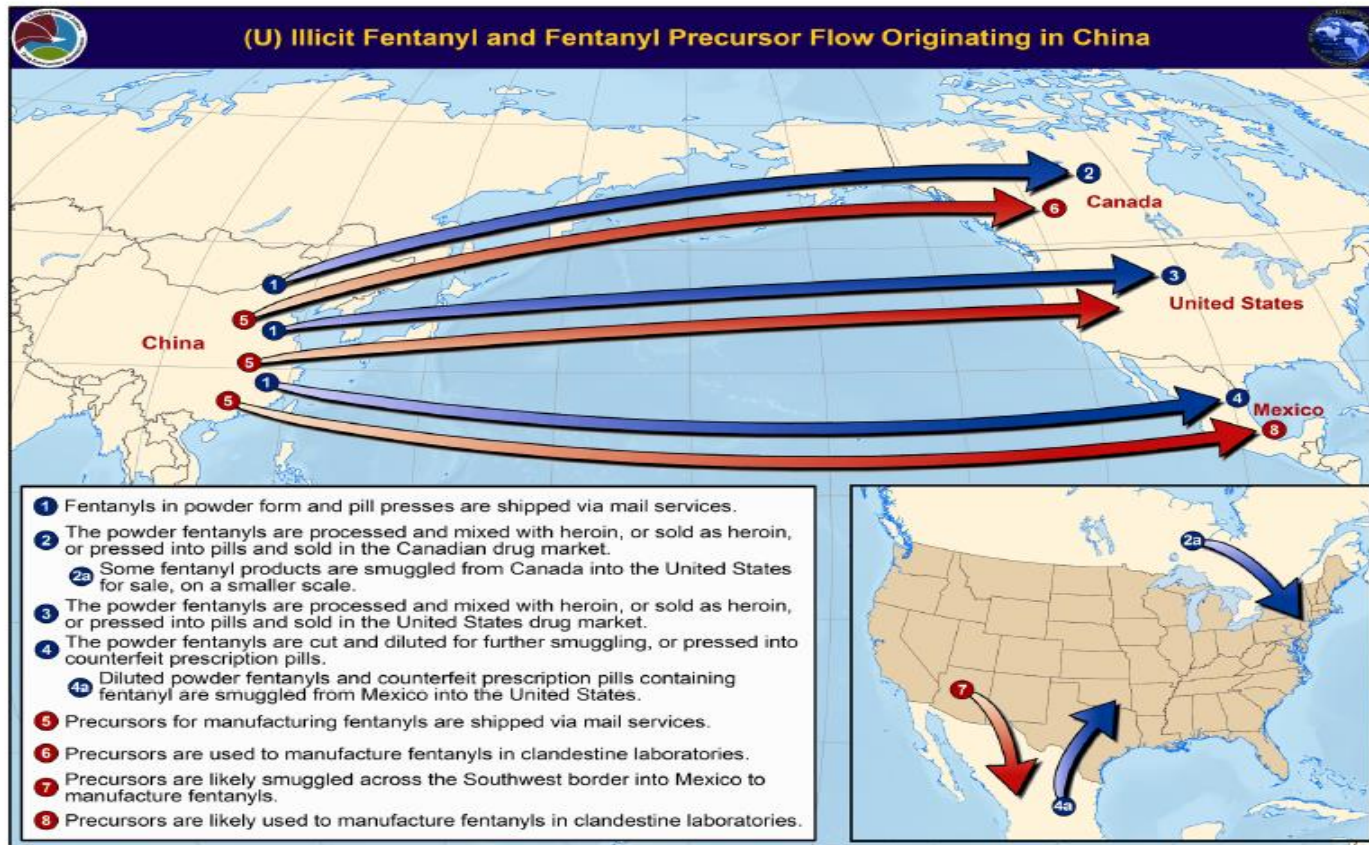
- **Indications of large scale production of counterfeit prescription opioid pain relievers with fentanyl**
 - Commonly abused opioid pain relievers
 - Impacts new group of people misusing opioids
 - Broader potential geographic reach
 - <https://www.dea.gov/docs/Counterfeit%20Prescription%20Pills.pdf>

Illicitly-Made Fentanyl (IMF)

- Includes fentanyl *and* fentanyl analogs
- Manufactured unlawfully in clandestine labs, mainly in China
- Main route: Mexican Drug Trafficking Organizations
- Most recent increases in non-fatal and fatal fentanyl-involved overdoses linked to IMF
- Often mixed with heroin and/or sold as heroin, or as counterfeit pills



Figure 1: Illicit Fentanyl and Fentanyl Precursor Flow Originating in China



Source: DEA

*Arrows do not represent specific transportation routes.



[illegible]



UNITED STATES

Drug Enforcement Administration

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HEADQUARTERS NEWS

March 18, 2015

Contact: DEA Public Affairs
(202) 307-7977

DEA Issues Nationwide Alert on Fentanyl as Threat to Health and Public Safety

MAR 18 (WASHINGTON) - The United States Drug Enforcement Administration (DEA) today issued a nationwide alert about the dangers of fentanyl and fentanyl analogues/compounds. Fentanyl is commonly laced in heroin, causing significant problems across the country, particularly as heroin abuse has increased. This alert was issued through the multi-agency El Paso Intelligence Center (EPIC) to all U.S. law enforcement.

“While pharmaceutical fentanyl (from transdermal patches or lozenges) is diverted for abuse in the United States at small levels, this latest rash of overdose deaths is largely due to clandestinely-produced fentanyl, not diverted pharmaceutical fentanyl.”

UNCLASSIFIED

(U) National Heroin Threat Assessment Summary

DEA-DCT-DIR-039-15
APRIL 2015



UNCLASSIFIED

Fentanyl Alert in Ohio



News Release

John R. Kasich/ Governor
Richard Hodges/ Director

FOR IMMEDIATE RELEASE

September 24, 2015

Contacts: ODH Office of Communications (614) 644-8562
OhioMHAS Office of Communications (614) 728-5090

Fentanyl Significantly Contributes to Rise in Ohio Drug Overdose Deaths

*New Data Shows Some Promising Progress in Key Areas in Fight Against
Opiate Abuse, But More Work Ahead*

Ohio Department of Health (2015). 2014 Ohio Drug Overdose Preliminary Data: General Findings. Retrieved from:
<http://www.healthy.ohio.gov/~media/HealthyOhio/ASSETS/Files/injury%20prevention/2014%20Ohio%20Preliminary%20Overdose%20Report.pdf>.

Increases in Fentanyl Drug Confiscations and Fentanyl-related Overdose Fatalities

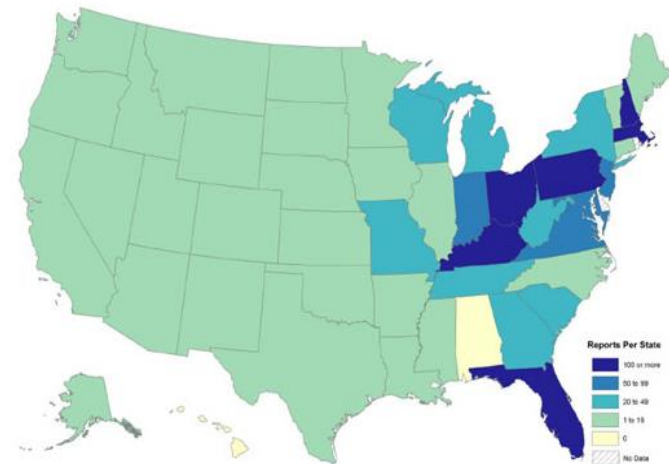


This is an official
CDC HEALTH ADVISORY

Table 1: Top 10 states by total Fentanyl Seizures, 2014, unpublished NFLIS data

Rank	State	Number of Fentanyl seizures
1	Ohio	1245
2	Massachusetts	630
3	Pennsylvania	419
4	Maryland	311
5	New Jersey	238
6	Kentucky	232
7	Virginia	222
8	Florida	183
9	New Hampshire	177
10	Indiana	133

Fentanyl reports in NFLIS, by State July – December 2014

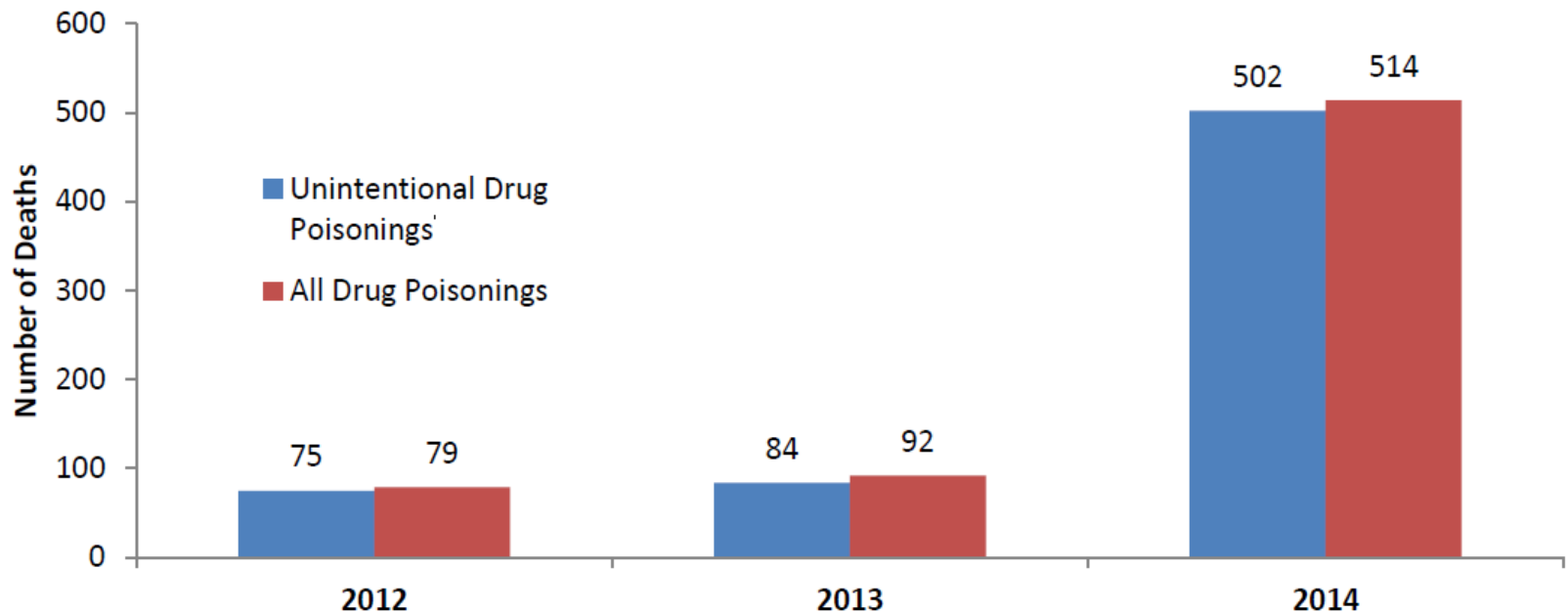


Drug Enforcement Administration, Office of Diversion Control, Drug and Chemical Evaluation Section, Data Analysis Unit

09-15-2015

Fentanyl Deaths in Ohio

Figure 1. Fentanyl-Related Drug Overdoses, Ohio, 2012-14¹



Source: Ohio Department of Health, Office of Vital Statistics; Analysis Conducted by Injury Prevention Program

Key findings from Ohio EpiAid

- ❑ **Illicit fentanyl is driving the epidemic in Ohio**
 - Strong correlation between illicit confiscations and deaths
 - DEA report of high illicit fentanyl supply in Ohio
 - Similarity in demographics of heroin and fentanyl decedents
 - Tox reports show heroin and/or cocaine often co-implicated
 - Qualitative data indicating powder fentanyl sold as heroin
- ❑ **Potency of fentanyl is high, and onset of death can be rapid**
- ❑ **Use of multiple surveillance tools can help track and anticipate fentanyl deaths**

Key findings from Ohio EpiAid

- ❑ **High Risk groups point out opportunities to intervene**
 - Recent release from jail, hospital, or rehabilitation facility
 - History of Mental illness
 - Those at risk for Prescription Opioid misuse/abuse
 - Many fentanyl decedents have a history of Rx opioid use, often at concerning doses
 - A substantial number of fentanyl decedents had an Opioid prescription within a year of fatal overdose (27% within last month)

Recent Alerts

Influx of Fentanyl-laced Counterfeit Pills and Toxic Fentanyl-related Compounds Further Increases Risk of Fentanyl-related Overdose and Fatalities



CDC, August 25, 2016

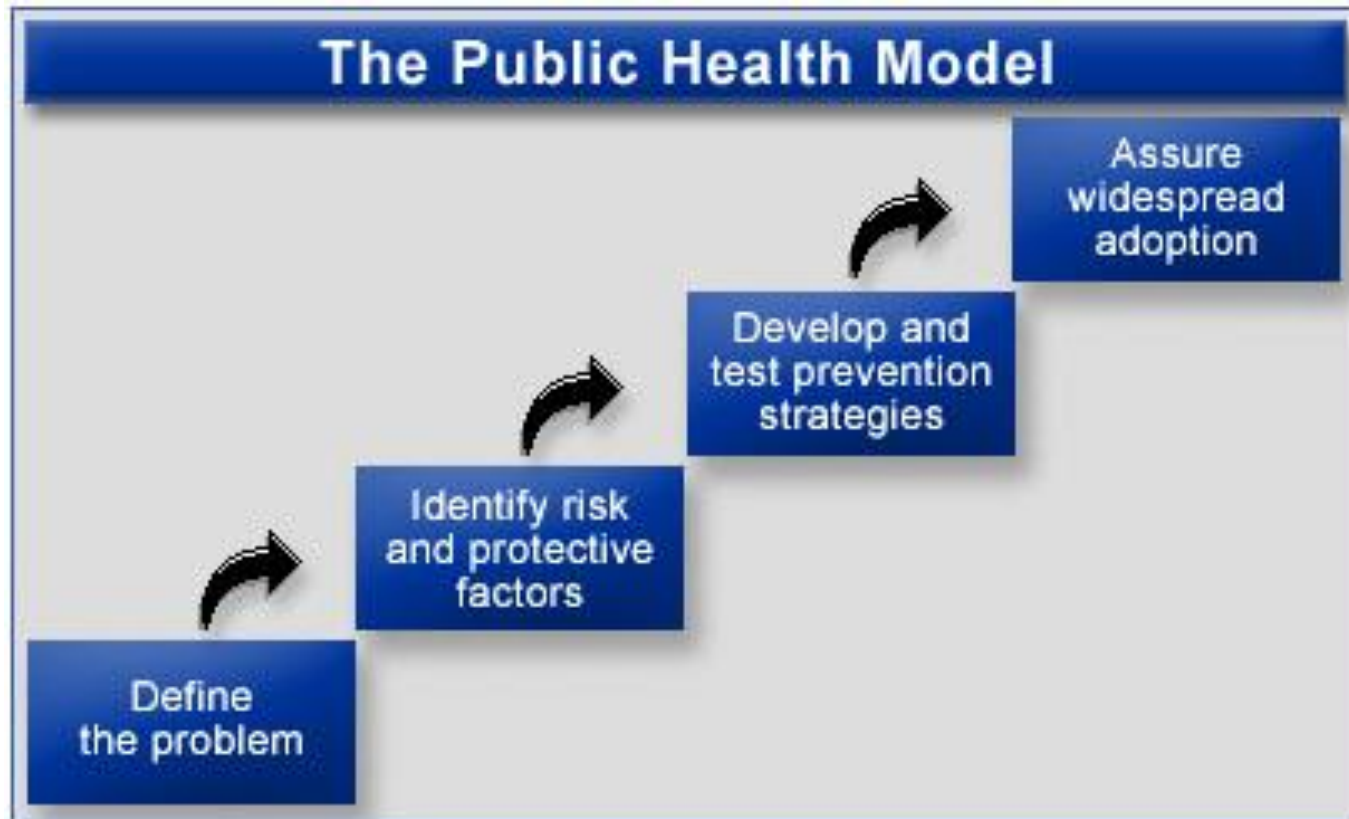
**DEA Report: Counterfeit Pills Fueling U.S.
Fentanyl and Opioid Crisis**

Problems resulting from abuse of opioid drugs continue to grow

July 22, 2016



What Can We Do?



Step 1: Where is the problem? How big is it?

❑ Enhance Public Health Surveillance

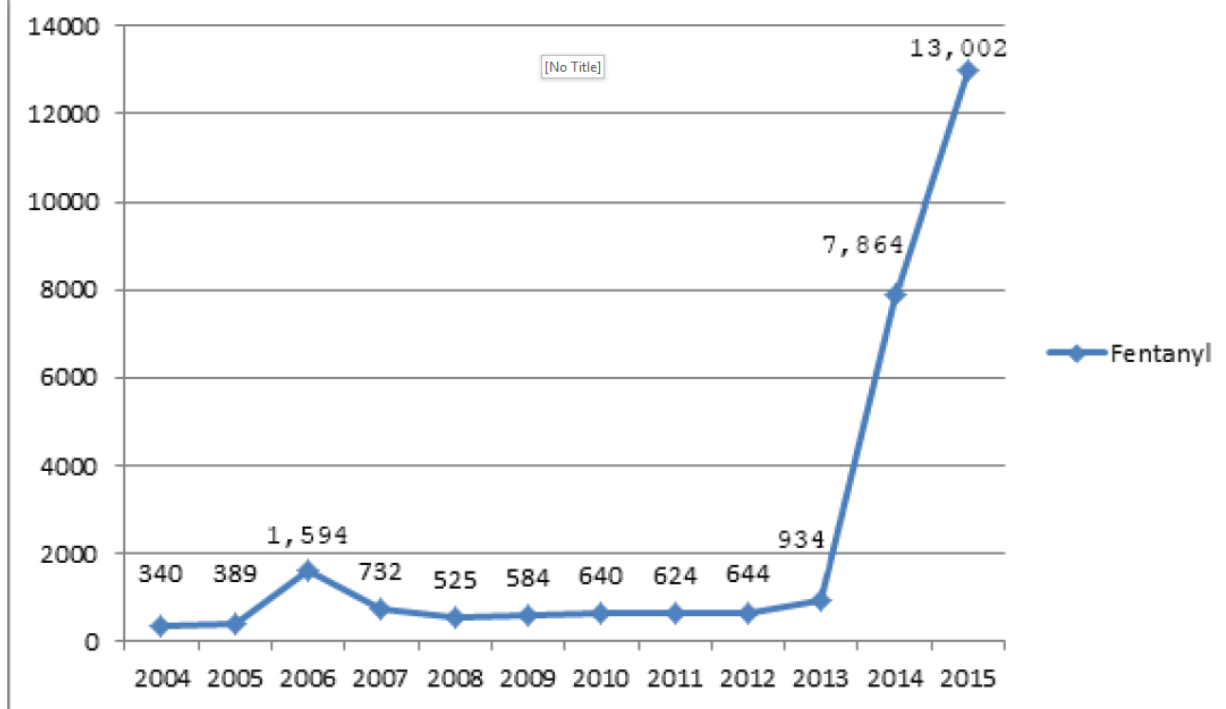
- Increase testing for fentanyl by ME/Coroner and Law Enforcement
- Monitor DEA data on heroin and fentanyl seizures
- Collect and analyze ME/Coroner and Toxicology reports using NVDRS system to refine risk factor analysis
- Continue to utilize and refine syndromic surveillance of Heroin-related ED visits
- Implement tracking of EMS naloxone usage, particularly multiple use

CDC's New State-based Program

- ❑ ***“Enhanced State Surveillance of Opioid-Involved Morbidity and Mortality”*; CDC-RFA-CE16-1608**
- ❑ **12 states funded at ~ \$350k/each**
- ❑ **Awardees will be funded to:**
 - Increase the timeliness of nonfatal opioid overdose reporting
 - Increase the timeliness of fatal opioid overdose and associated risk factor reporting
 - Disseminate surveillance findings to key stakeholders working to prevent opioid-involved overdoses

Why new data sources are helpful

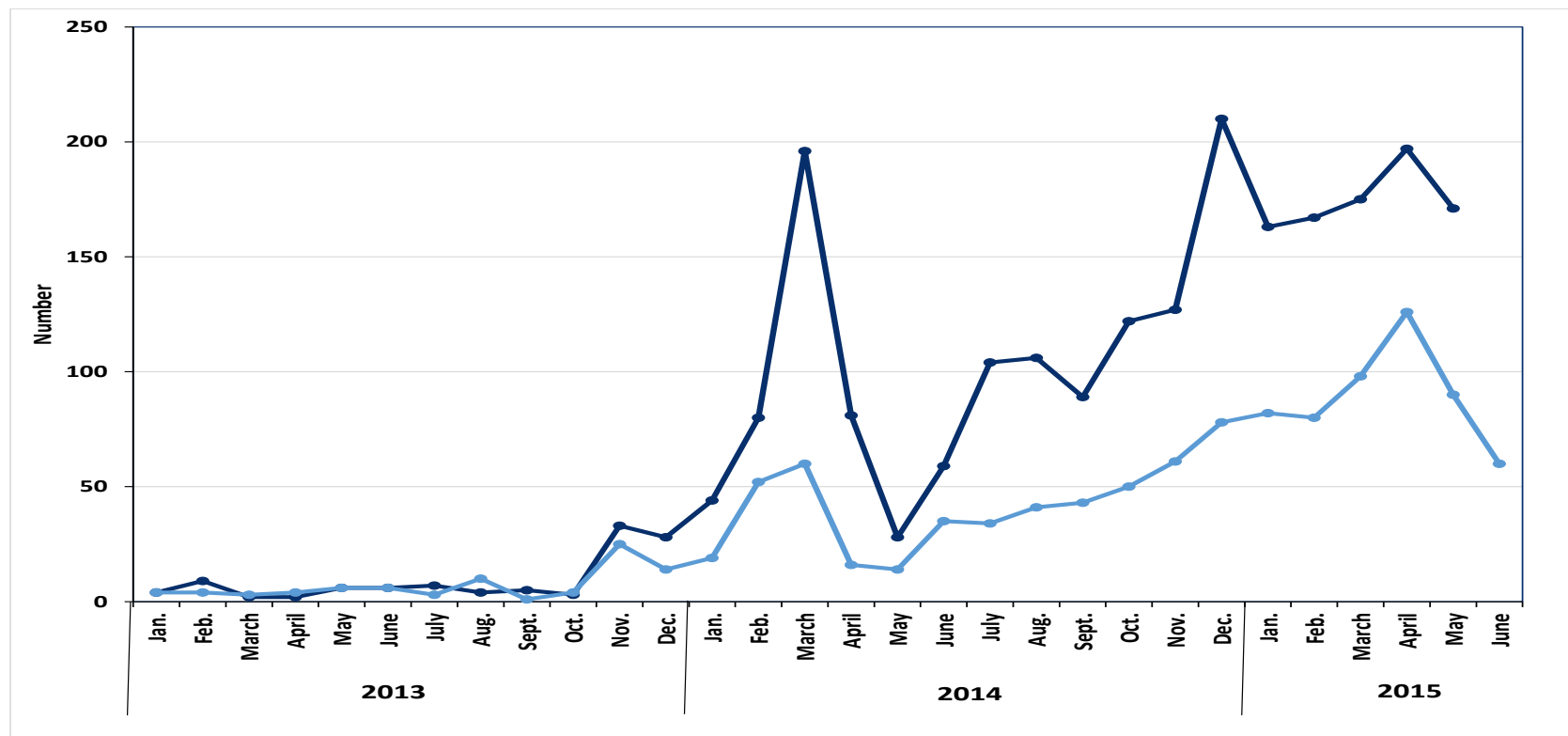
Figure 4: Number of Fentanyl Exhibits in NFLIS, 2004-2015



Source: DEA

Case in Point: Correlation between seizures and deaths

Law enforcement seizures (dark blue) and fentanyl-involved overdoses (light blue), Ohio, 2013-2014



Step 2: Identify risk and protective factors

- ❑ Refine risks and target groups in your state/region**
- ❑ Men**
- ❑ Ages 25-44**
- ❑ People who have misused Rx opioids in the past year**
- ❑ Previous overdoses**
- ❑ Recent institutionalization**
- ❑ History of Mental Illness**

Step 3: Develop & test interventions

- ❑ **Start upstream with the Rx problem** – don't be afraid of “driving people to heroin”
- ❑ Best existing evidence is outlined in CDC's Prevention for States funding and Haegerich et. al article
- ❑ Adopt and implement the *CDC Guideline for Prescribing Opioids for Chronic Pain*



Drug Alcohol Depend. 2014 Dec 1;145:34-47. doi: 10.1016/j.drugalcdep.2014.10.001. Epub 2014 Oct 14.

What we know, and don't know, about the impact of state policy and systems-level interventions on prescription drug overdose.

Responding to the Heroin Epidemic



PREVENT People From Starting Heroin

Reduce prescription opioid painkiller abuse.

Improve opioid painkiller prescribing practices and identify high-risk individuals early.



REDUCE Heroin Addiction

Ensure access to Medication-Assisted Treatment (MAT).

Treat people addicted to heroin or prescription opioid painkillers with MAT which combines the use of medications (methadone, buprenorphine, or naltrexone) with counseling and behavioral therapies.

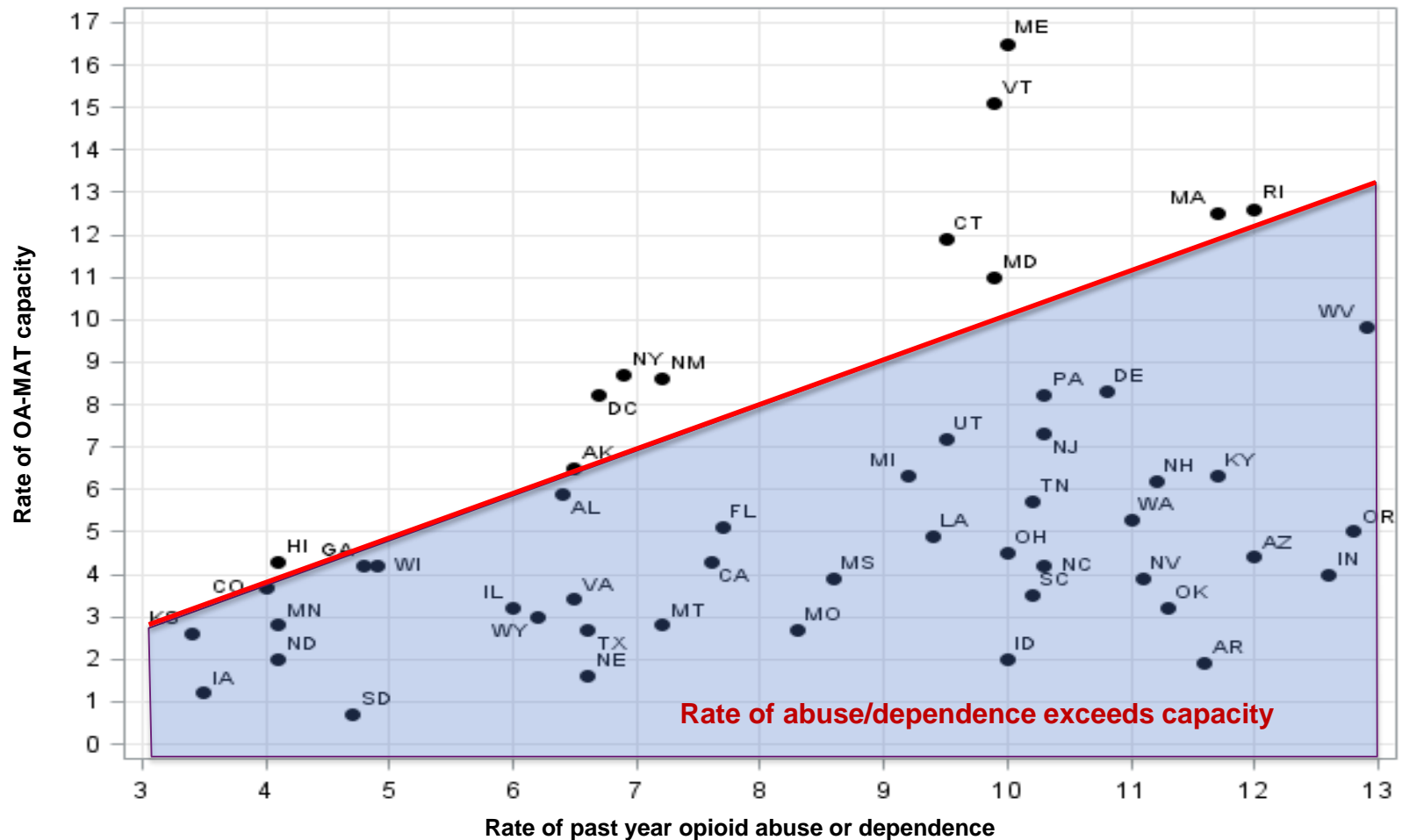


REVERSE Heroin Overdose

Expand the use of naloxone.

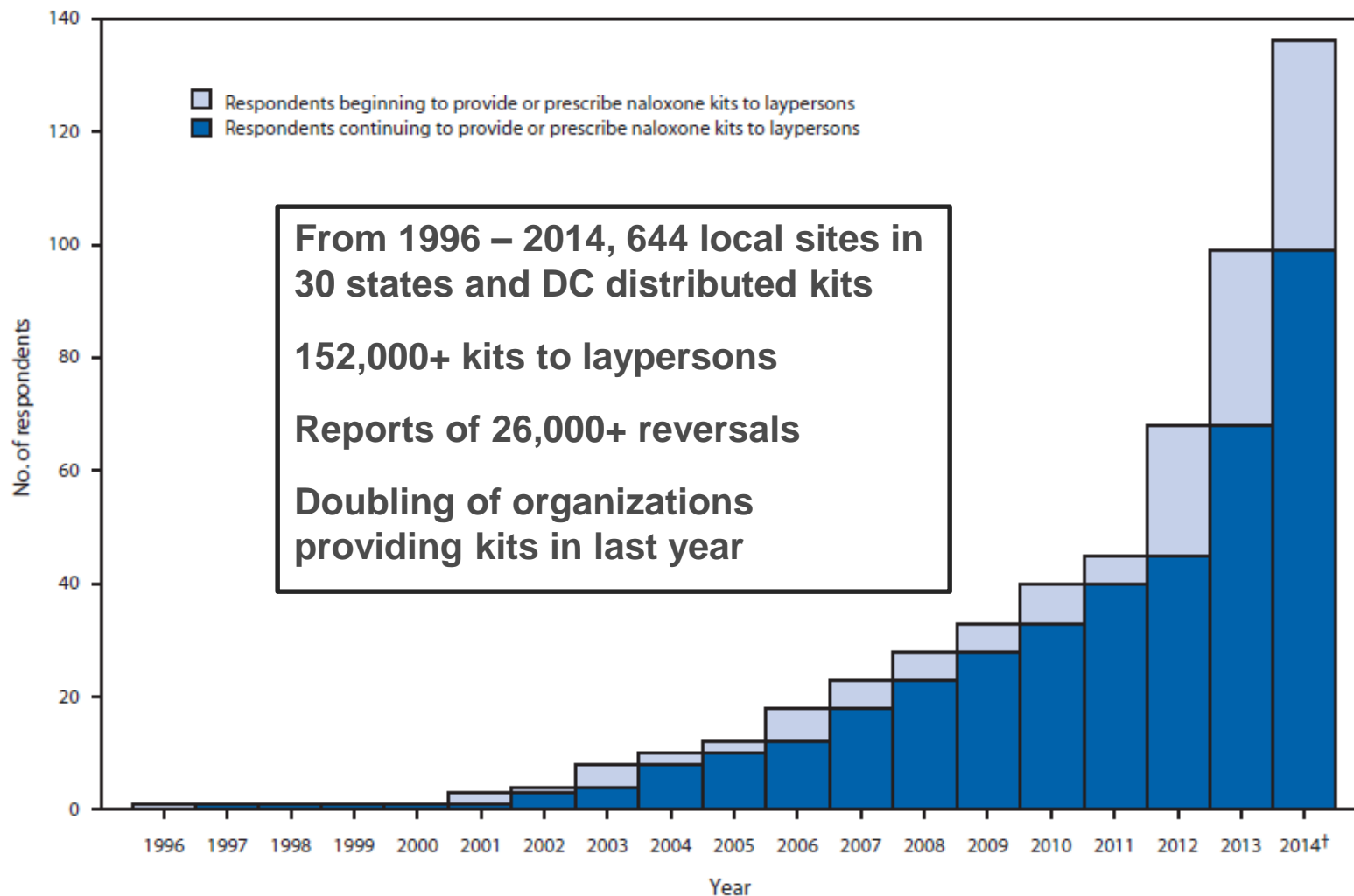
Use naloxone, a life-saving drug that can reverse the effects of an opioid overdose when administered in time.

Opioid Abuse and Dependence exceeds Medication-Assisted Treatment Capacity in most States



Jones, C. M., Campopiano, M., Baldwin, G., & McCance-Katz, E. (2015). National and State Treatment Need and Capacity for Opioid Agonist Medication-Assisted Treatment. *American Journal of Public Health*, (0), e1-e9.

Naloxone distribution is increasing but gaps remain



Step 4: How to get started? Look at a Road Map!

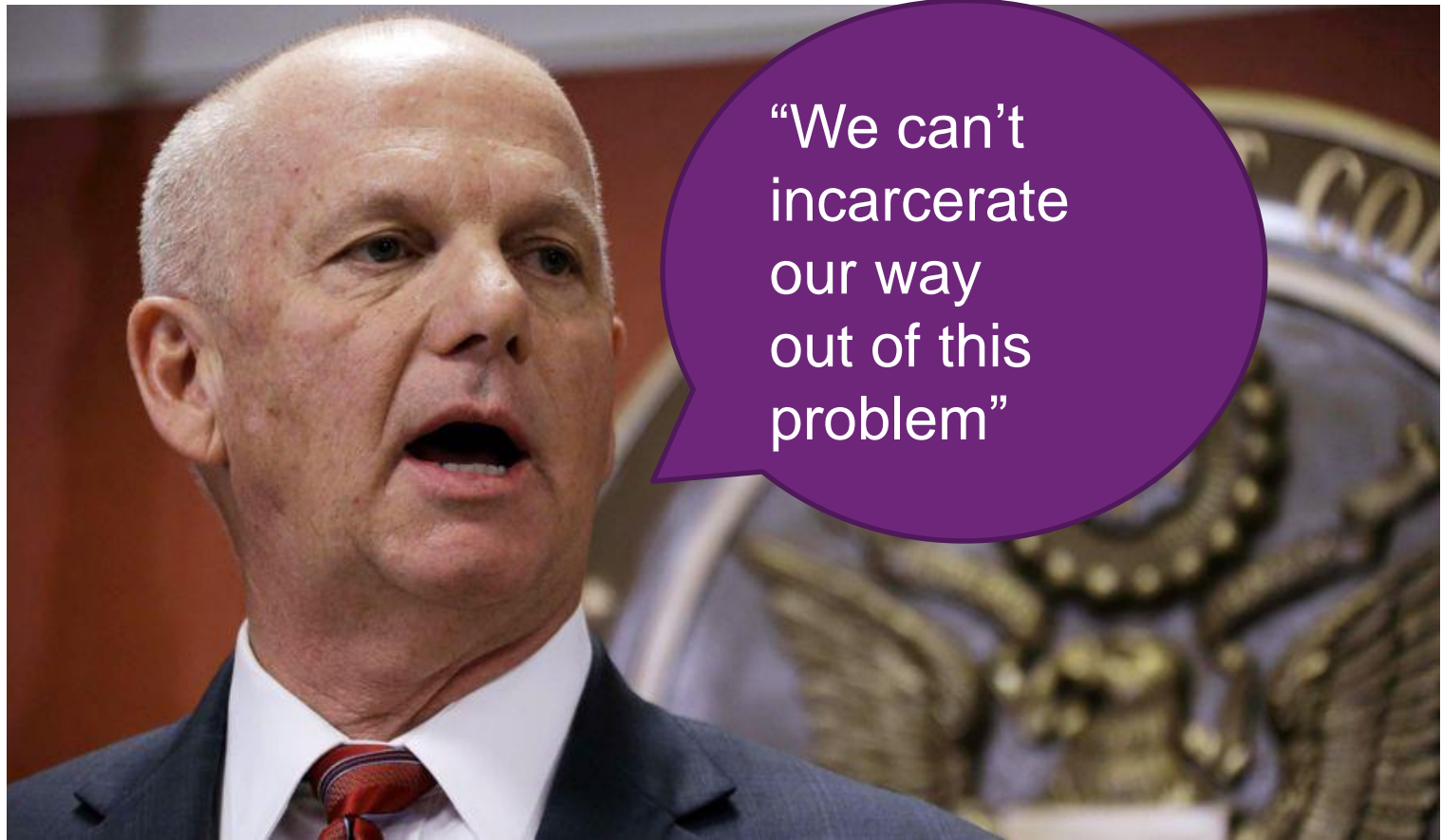


**Finding
Solutions to the
Prescription
Opioid and
Heroin Crisis:
A Road Map
for States**

National Governors Association

<http://www.nga.org/files/live/sites/NGA/files/pdf/2016/1607NGAOpioidRoadMap.pdf>

Or a Task Force Report...

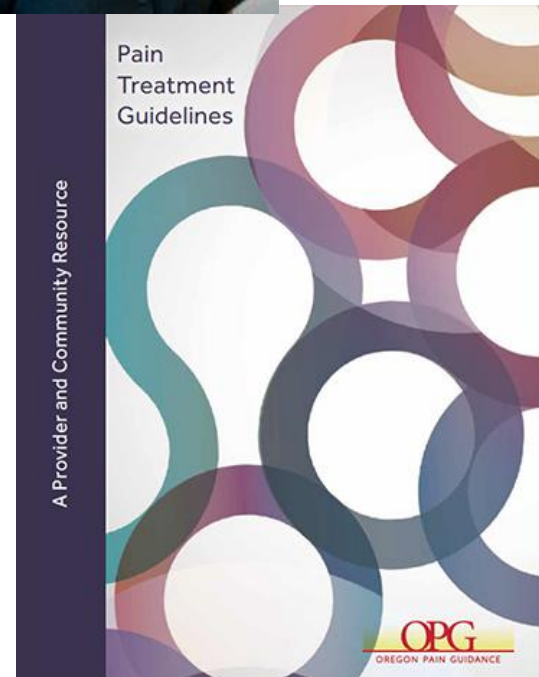


Follow the Leader!

Rhode Island's Strategic Plan on Addiction and Overdose

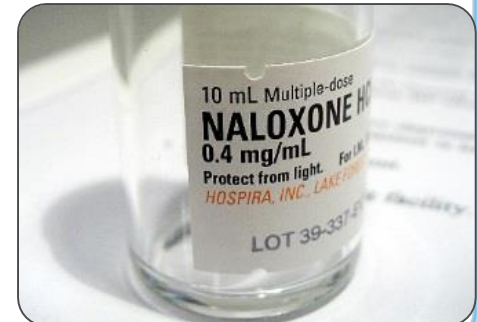


Oregon Injury and Violence Prevention Program



What CDC is doing about heroin...

- **Improve data** new state-based surveillance program with 12 states (~\$3.5M); work with DEA and local HIDTAs. Personnel “swap” to improve information sharing.
- **Develop and test interventions** with 8 HIDTA directors in 20 states, bridging public health and public safety.
- **Strengthen state & local efforts** by scaling up effective interventions: link CDC’s \$70M program to other efforts.



Working with HIDTAs

HIDTA	Hot Spot(s)
Appalachia	Huntington, WV
Atlanta/Carolinas	Atlanta, NC I-85 corridor – POST OD-PROTOCOL FOR ED AND HOSPITALS?
Michigan	Detroit, Wayne County -
New England	Hillsborough County, NH –NALOXONE DISTRIBUTION? PATIENT NAVIGATOR PROGRAM?
New York/New Jersey	New York City- EMERGENCY DEPARTMENT PROTOCOL, LINKAGES TO SERVICES, CAMDEN MODEL?
Ohio	Cuyahoga County (Cleveland), and Dayton – PRISON RELEASE PROGRAM & JUDICIAL REFORM?
Philly/Camden	Delaware Co., PA; Camden Co., NJ; and New Castle Co., DE
Wash/Baltimore	Baltimore City, Anne Arundel County, MD and Berkeley County, WV

IF NOT NOW...

WHEN?



CDC

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**For more information please contact Centers for
Disease Control and Prevention**

1600 Clifton Road NE, Atlanta, GA 30333

Telephone: 1-800-CDC-INFO (232-4636)/TTY: 1-888-232-6348

E-mail: cdcinfo@cdc.gov Web: www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

Special thanks to Noah Aleshire for his assistance preparing this presentation